



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/960,204	09/21/2001	Gintaras A. Vaisnys	10334/6	5152

7590

07/07/2003

James W. Paul, Esq.
FULWIDER PATTON LEE & UTECHT, LLP
6060 Center Drive, 10th Floor
LOS ANGELES, CA 90045

EXAMINER

ALEJANDRO, RAYMOND

ART UNIT

PAPER NUMBER

1745

DATE MAILED: 07/07/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/960,204

Applicant(s)

VAISNYS ET AL.

Examiner

Raymond Alejandro

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Applicant's cancellation of claims 27-39 (Group II) in Paper No. 7 is acknowledged.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 12/26/01 was considered by the examiner.

Drawings

3. The drawings filed on 09/21/01 have been accepted.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 6-7, 9-17, 19-20 and 22-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Benvegar et al 5721482.

The instant application is directed to a battery pack wherein the disclosed inventive concept comprises the indicator feature. Other limitations include the specific indicators; the particular functions of the indicator; the particular microcontroller; the external defibrillator and the status indication.

Art Unit: 1745

With respect to claims 1 and 14:

Benvegar et al disclose an intelligent battery having an advance low battery warning for a battery powered device (ABSTRACT/COL 2, lines 27-45) wherein the battery comprises a battery suitable for powering a battery powered device and a charge monitor circuit. The battery powered device is a defibrillator device (ABSTRACT/COL 18-24).

The charge monitor circuit continuously measures the amount of electrical charge input and output from the battery (ABSTRACT/COL 2, lines 27-45). When the amount of charge remaining in the battery goes below a threshold amount an advance low battery warning is generated (ABSTRACT/ COL 2, lines 27-45). It is disclosed that the low battery warning occurs independently of the output voltage of the battery such that an advance low battery warning is provided (ABSTRACT/ COL 2, lines 27-45).

Figure 2 below illustrates a diagram of the battery pack 12 wherein the battery pack 12 has a plurality of battery cells 30 (*power supply*) connected in series across the terminals of the battery pack 12 (COL 3, line 65 to COL 4, line 10). Also contained within the battery pack 12 is the charge monitor IC 32 which monitors and maintains a cumulative sum of the electrical current as it goes in and out of the battery (i.e. battery cells 30). The amount of charge input into the battery and output from the battery is continuously measured by the charge monitor IC 32 (COL 3, line 65 to COL 4, line 10). It is disclosed that the charge monitor IC 32 resides on a printed circuit board mounted inside a removable battery pack 12 that is used with the portable defibrillator (COL 4, lines 10-13).

It is disclosed that the battery pack 12 (See Figure 2 below) includes a button 34 and an LED bar graph 36 (it is noted that LED stands for light emitting diode). When the button 34 is

Art Unit: 1745

pressed, charge monitor IC 32 activates LED bar graph 36 which indicates the total charge remaining in the battery cells 30 (COL 4, lines 39-43).

It is disclosed that the charge monitor IC 32 reports information, including the battery state of charge, the battery's temperature and the charge monitor's status including a plurality of calibration and testing flags to the defibrillator/monitor instrument (COL 4, lines 18-23).

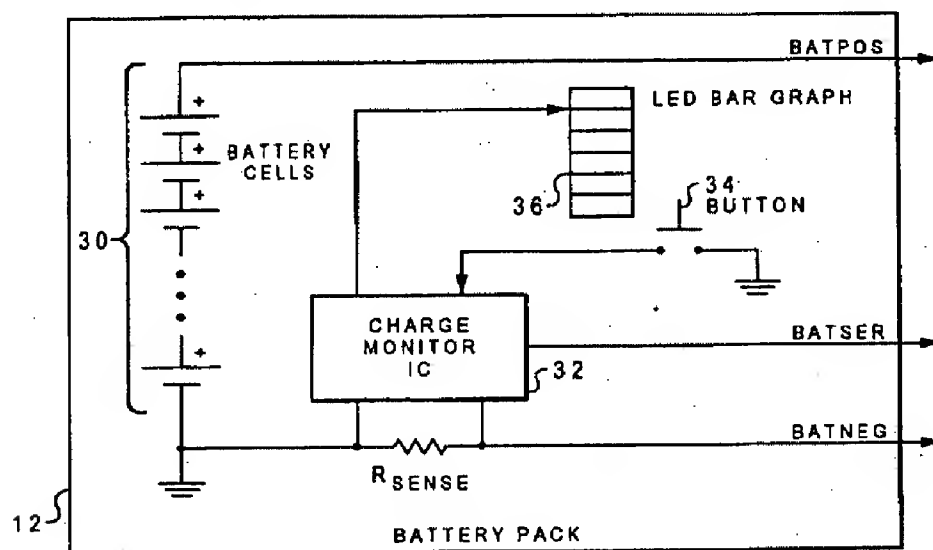


Fig. 2

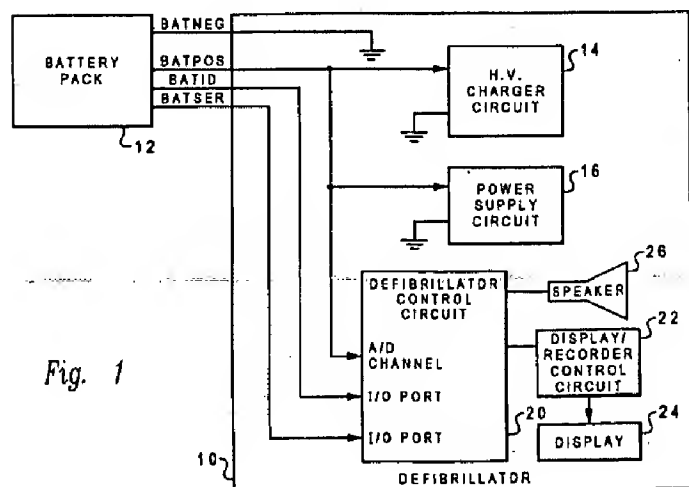
With respect to claims 2-4 and 15-17:

It is disclosed that the battery pack 12 includes a button 34 and an LED bar graph 36 (it is noted that LED stands for light emitting diode). When the button 34 is pressed, charge monitor IC 32 activates LED bar graph 36 which indicates the total charge remaining in the battery cells 30 (COL 4, lines 39-43). *Thus, since the charge monitor IC 32 activates the LED bar graph 36, the LED bar graph 36 (the light emitting diode) flashes to indicate the battery cells are operating properly.*

Art Unit: 1745

As for claims 6-7, 10-11, 19-20 and 24-25:

Benvegar et al disclosed that the control circuit is contained within and formed as an integral part of the battery pack, thus, providing an intelligent battery that produces an advance low battery warning for a battery powered defibrillator (COL 7, lines 50-55). It is disclosed that the control circuit 20 makes a determination of when the amount of charge remaining in the battery goes below a threshold amount, this threshold amount reflects the desired amount of charge to be remaining in a battery. When it is determined that the charge in the battery pack has reached this threshold amount, control circuit 20 provides an advance low battery warning by indicating the low battery condition on display 24 (COL 3, lines 42-55). The control circuit 20 may produce an audio warning that is output by speaker 26. Control circuit 20 also monitors the voltage output of battery pack 12 and when the voltage output reaches a minimum threshold limit, control circuit 20 provides an additional audio and visual warning via speaker 26 and display 24, called a battery shutdown warning which indicates the battery shutdown is imminent (COL 3, lines 55-63). **Figure 1 below** shows control circuit feature including the controller, the audio indicator and the enunciator.



Art Unit: 1745

With respect to claim 9 and 23:

It is disclosed that the battery pack 12 includes a button 34 and an LED bar graph 36 (it is noted that LED stands for light emitting diode). When the button 34 is pressed, charge monitor IC 32 activates LED bar graph 36 which indicates the total charge remaining in the battery cells 30 (COL 4, lines 39-43). *Thus, the indicator indicates a state of the power supply.*

With respect to claim 12 and 26:

It is disclosed that the charge monitor IC 32 resides on a printed circuit board mounted inside a removable battery pack 12 that is used with the portable defibrillator (COL 4, lines 10-13). The battery powered device is a defibrillator device (ABSTRACT/COL 18-24).

With respect to claim 13:

It is taught that the low battery warning occurs independently of the output voltage of the battery such that an advance low battery warning is provided (ABSTRACT/ COL 2, lines 27-45).

With respect to claim 22:

Figure 2 above illustrates a diagram of the battery pack 12 wherein the battery pack 12 has a plurality of battery cells 30 (*power supply*) connected in series across the terminals of the battery pack 12 (COL 3, line 65 to COL 4, line 10).

Thus, the claims are anticipated.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 5 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benvegar et al 5721482 as applied to claims 3 and 16 above, and further in view of Kurle et al 6072299.

Benvegar et al is applied, argued and incorporated herein for the reasons above.

However, Benvegar et al do not expressly disclose the light emitting diode flashes to indicate a fault condition.

Kurle et al disclose a smart battery (ABSTRACT) that self-monitors and indicates use conditions (ABSTRACT). Kurle et al disclose that a relative state of charge that includes a reserve factor is displayed using the LED (*the light emitting diode*) 76a-d wherein one LED flashes if the relative state of charge is less than or equal to 0 % (COL 14, lines 40-45). It is also

Art Unit: 1745

disclosed that if any identified flag has been set, then the battery 22 displays the conditioning required pattern wherein the conditioning required display pattern alternates flashing the first and third LED (COL 14, lines 25-31).

Kurle et al disclose the battery pack is useful in portable medical devices such as a portable defibrillator unit (COL 1, lines 22-28) wherein the battery pack provides the power to the defibrillator (COL 1, lines 30-45).

In view of the above, it would have been obvious to one skilled in the art at the time the invention was made to incorporate the light emitting diode flashes to indicate a fault condition of Kurle et al in the indicator of Benvegar et al because Kurle et al teach the light emitting diode indicator (LED) flashes if the relative state of charge is less than certain predetermined level. Accordingly, a flashing light emitting diode is suitable to identify, recognize and display battery conditions to a user. Thus, if any error and/or fault or failing condition is detected in the battery, the flashing-lighted LED (light emitting diode) display makes pertinent indication. As a result, it is obtained a battery that internally monitors its own operating condition, its own need for maintenance and its own useful life, and communicates this information to a user.

9. Claims 8 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benvegar et al 5721482 as applied to claims 1 and 14 above, and further in view of Olson et al 6366809.

Benvegar et al is applied, argued and incorporated herein for the reasons above. However, Benvegar et al do not expressly disclose the indicator communicates that the medical device has failed a self test per se.

Olson et al disclose a defibrillator battery with memory and status indication gauge (TITLE/ABSTRACT) wherein a daily self-test and a weekly self-test of the automated external defibrillator (AED) 10 is performed during which the voltage level of battery cells 17 of battery pack 15 is checked; wherein processor 74 illuminates replace battery indicator 64 of status gauge indicator 60 and activates alarm 96 if faults are identified during daily self-test or weekly self-test (COL 6, lines 47-62).

In view of the above, it would have been obvious to one skilled in the art at the time the invention was made to incorporate the indicator communicates that the medical device has failed a self test of Olson et al in the indicator of Benvegar et al because Olson et al teach that the battery indicator is illuminated if fault conditions are identified during daily self-test and weekly self-test. Accordingly, the indicator will illuminate if a battery replacement is required. Therefore, the defibrillator battery and associated status indicator insures constant readiness of an automated external defibrillator for defibrillating a patient by preventing defibrillator failure due to an unknown reduced battery charge.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Alejandro whose telephone number is (703) 306-3326. The examiner can normally be reached on Monday-Thursday (8:30 am - 7:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on (703) 308-2383. The fax phone numbers for the

Art Unit: 1745

organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Raymond Alejandro
Examiner
Art Unit 1745

A handwritten signature in black ink, appearing to read 'RAM', is written over the printed name 'Raymond Alejandro'.